**DEHYDRATION**

* Signs / Symptoms
  + Symptoms may include headaches similar to what is experienced during a hangover, a sudden episode of visual snow, decreased blood pressure (hypotension), and dizziness or fainting when standing up due to orthostatic hypotension. Untreated dehydration generally results in delirium, unconsciousness, and in extreme cases death.
  + Dehydration symptoms generally become noticeable after 2% of one’s normal water volume has been lost. Initially, one experiences thirst and discomfort, possibly along with loss of appetite and dry skin. Athletes may suffer a loss of performance of up to 50%, and experience flushing, low endurance, rapid heart rates, elevated body temperatures, and rapid onset of fatigue.
  + Symptoms of mild dehydration include thirst, decreased urine volume, urine that is darker than usual, unexplained tiredness, lack of tears when crying, headache, dry mouth, and dizziness when standing due to orthostatic hypotension.
  + In moderate to severe dehydration, there may be no urine output at all. Other symptoms in these states include lethargy or extreme sleepiness, seizures, sunken fontanel (soft spot) in infants, fainting, and sunken eyes
  + The symptoms become increasingly servere with greater water loss. Ones heart and respiration rates begin to increase to compensate for decreased plasma volume and blood pressure, while body temp may rise because of decreased sweating. Around 5% to 6% water loss, one may become groggy or sleepy, experience headaches or nausea, and may feel tingling in ones limbs (paresthesia). With 10% to 15% fluid loss, muscles may become spastic, skin my shrivel and wrinkle, vision may dim, urination will be greatly reduced and may become painful, and delirium may begin. Losses greater than 15% are usually fatal.

**HEAT STROKE**

* Body temperature goes above 104, the brain begins to go and you need to seek immediate help.
* First try to cool the body and decrease the heart rate.
* Make sure the person is hydrated

**Treatment**

* Seek immediate help and while waiting submerge the body in 35 degree water.
* Place cool packs on groin, air pit, and neck.

HYPOTHERMIA

* Stages
  + Stage 1- Body temp drops 1.8-3.6 degrees Fahrenheit (1-2 Celsius), mild shivering occurs. Blood vessels in outer extremities contract, lessening heat loss to the outside air. Breathing becomes quick and shallow. Goose bumps form, to raise body hair on end in an attempt to create an insulating layer of air around the body.
  + Stage 2- Body temp drops 3.6- 7.2 degrees Fahrenheit (2-4 Celsius), Shivering becomes more violent. Surface blood vessels contract further as the body focuses its remaining resources on keeping the vital organs warm. Victim becomes pale. Lips, ears, fingers and toes may become blue.
  + Stage 3- Body temp drops below approx 90 degrees Fahrenheit (32.2 Celsius), normal is 98.6 degrees F or 37 degrees C. Cellular metabolic processes shut down. Major organs fail. Clinical death occurs.
* Treatment
  + Do not rub or massage the casualty
  + Do not give alcohol
  + Do not give food or drink (this includes warm drinks, this is only in extreme cases. The reason being that blood is diverted from the major organs where it is needed, and is sent to the stomach and intestines to digest the food and liquid, therefore lowering the core temperature further.)
  + Do not treat any frostbite
  + Do not allow the body to become vertical
  + Call the emergency services
  + Get the patient to shelter
  + If possible, the patient in a bath with medium-temp water, with the clothes on; do not do this to an elderly patient as death may occur as the blood flows to the surface of the skin restricting flow to the heart and brain.
  + Place hot water bottles (wrapped in a cotton sock) in the patient’s armpits and between their legs
  + Monitor the patient and be prepared to resuscitate
  + Remove wet clothing if and only if dry change is available
  + If in wilderness environment and other treatments are not possible, remove wet clothing from the victim and from one other person. Both individuals should get into the same sleeping bag if possible, or wrap the same blanket, if the sleeping bag is too small.

C- Cleanliness   
O- Overheating  
L- Layer  
D-Dryness   
  
R- Respiration – breathing  
R- Radiation- heat radiating from body  
E- Evaporation- wetness evaporating  
C- Conduction- ground  
C- Convection- wind

D- Deformities  
C- Contusions  
A- Abrasions  
P- Punctures  
B- Burns  
T- Tenderness  
L- Lacerations  
S- Swelling   
  
1. Scene survey

2. Verbal

3. Approach from feet

**SNOW BLINDNESS**

* sensitive to light
* red/teary

MCW NOTES

* PACE COUNT – (mine 67 for 100 m)
* Stride length depends on terrain
* Steps:
  + Traverse step = sideways
  + Herring bone = step, rest, step)
  + Ski slope = toe 🡪 heal
  + French = flat
  + German = toe
* Climbing with rope
  + Prevent falling
* Anchors

FIRE

* Kindling = small pieces of wood
* Tinder= lint, birch bark, etc.

Start fire during the day use glasses and at night, a lighter, car battery, or fuel (wood)

STRUCTURES

* Lean to
* TP
* Log Cabin

Under a tree, cliff, ledge 🡪 good areas for shelter.

CARRY LATTER

* 5-7 loops- clove hitch- wrap through ends of clove hitch – ½ fisherman knot

**BUDDY CARRIES**

SLING ROPE CARRY

* Sling rope under arm pits with sergeants knot
* Person sits in lap
* Rope over arms and under legs
* Square knot

FIREMANS CARRY

* Two people

**DRESSING FOR COLD WEATHER**

* **3 Layers**
  + **Wicking layer (poly-pro)**
    - **Holds water**
  + **Insulating (sweater)**
    - **Hat/gloves**
    - **Fleece**
    - **Wool**
    - **Socks**
  + **Shell (jacket, pants)**
    - **Protects from the elements**